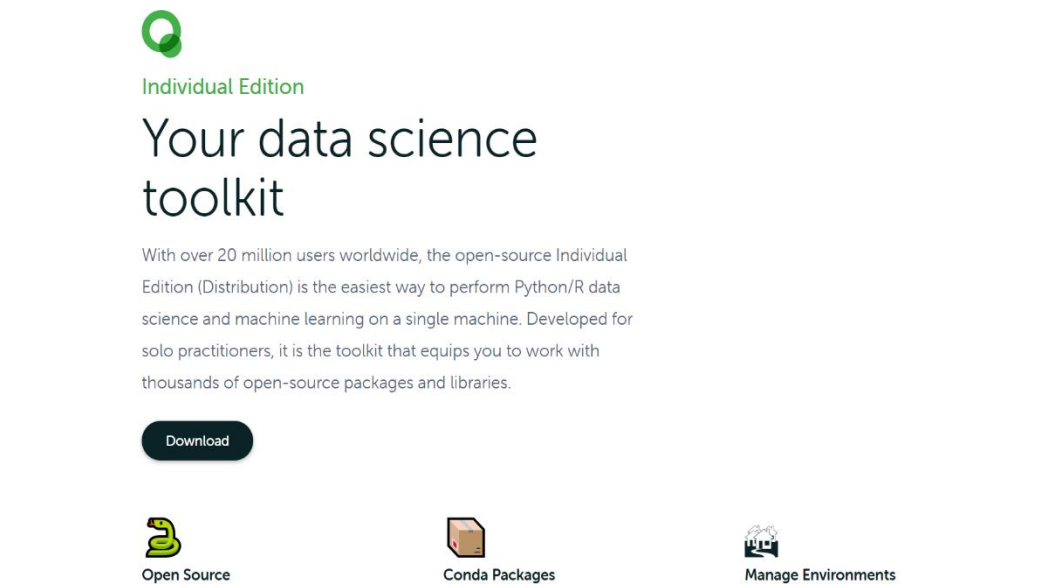


Anaconda & Spider Installation for windows:

1. Please click on the **link** below

<https://www.anaconda.com/download/#windows>



The screenshot shows the Anaconda Individual Edition download page. At the top is the Anaconda logo, followed by the text "Individual Edition" and "Your data science toolkit". Below this is a paragraph describing the toolkit: "With over 20 million users worldwide, the open-source Individual Edition (Distribution) is the easiest way to perform Python/R data science and machine learning on a single machine. Developed for solo practitioners, it is the toolkit that equips you to work with thousands of open-source packages and libraries." A prominent "Download" button is centered below the text. At the bottom, there are three icons with labels: "Open Source" (Python logo), "Conda Packages" (Conda logo), and "Manage Environments" (Docker logo).

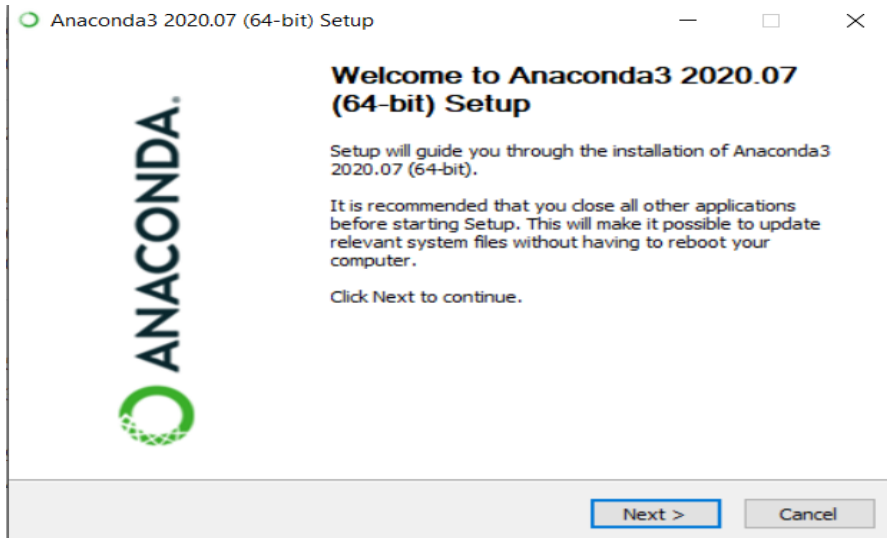
2. Click on **Download**, and then you have to check for compatibility of your Pc, after that it will start downloading.



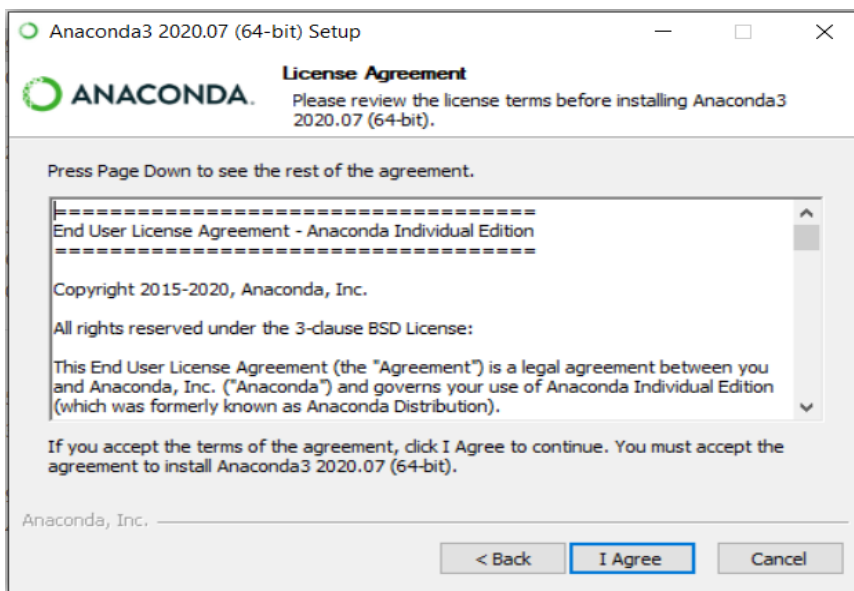
The screenshot shows the "Anaconda Installers" page. It is organized into three columns for different operating systems: Windows, MacOS, and Linux. Each column lists available installers for Python 3.8. Under Windows, there are "64-Bit Graphical Installer (466 MB)" and "32-Bit Graphical Installer (397 MB)". Under MacOS, there are "64-Bit Graphical Installer (462 MB)" and "64-Bit Command Line Installer (454 MB)". Under Linux, there are "64-Bit (x86) Installer (550 MB)" and "64-Bit (Power8 and Power9) Installer (290 MB)".

3. **Double click** the installer to launch.

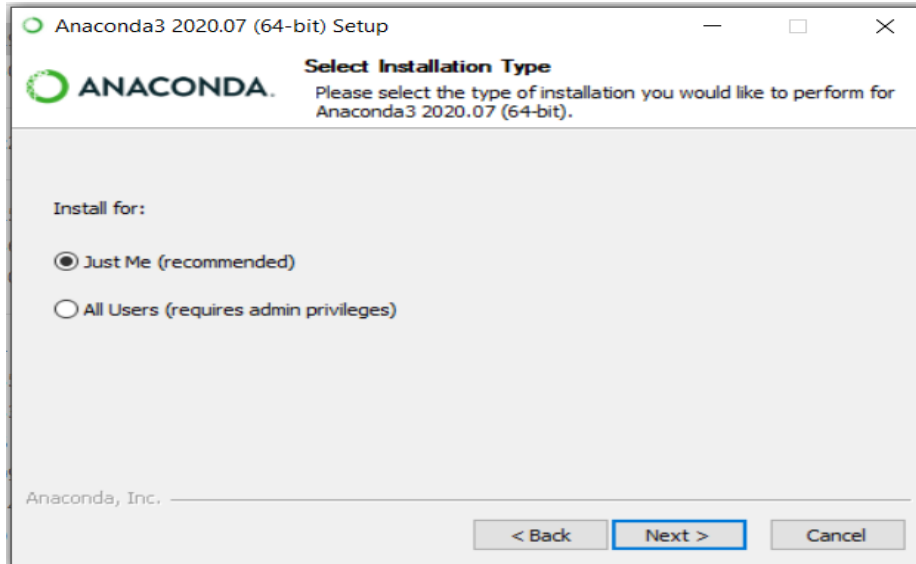
4. Click **Next**.



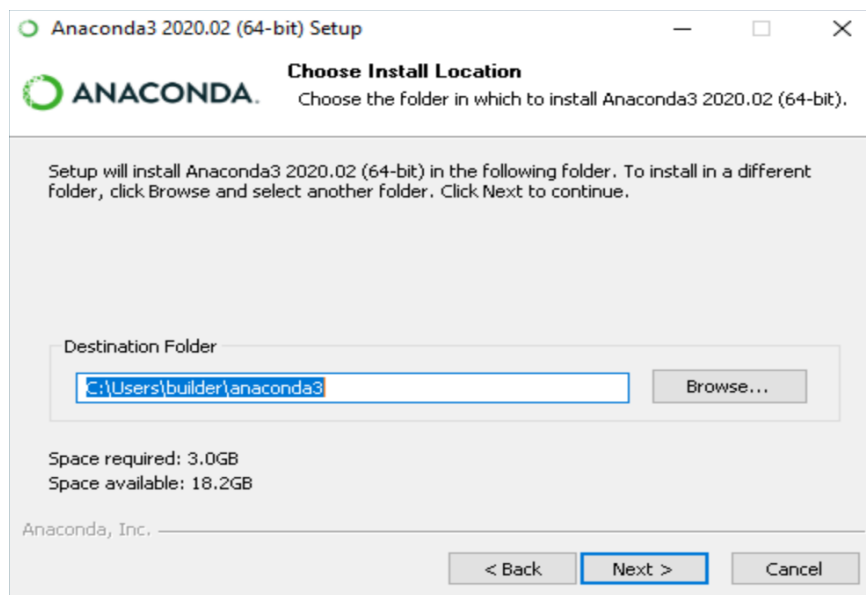
5. Read the licensing terms and click “I Agree”.



6. Select an install for “Just Me” unless you’re installing for all users (which require Windows Administrator privileges) and click Next.



7. Select a **destination folder** to install Anaconda and click the **Next** button.

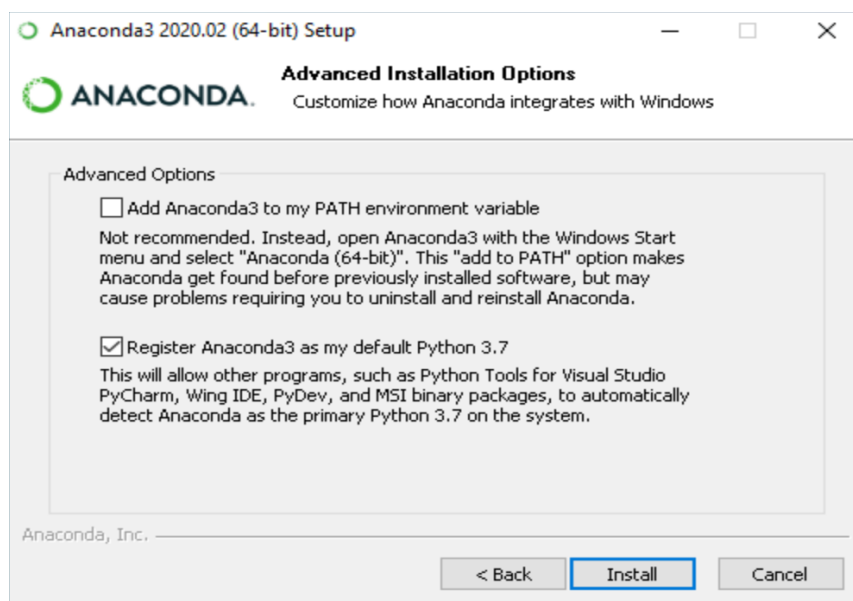


8. Choose whether to add Anaconda to your **PATH** environment variable. We recommend not adding Anaconda to the **PATH** environment variable, since this can interfere with other software.

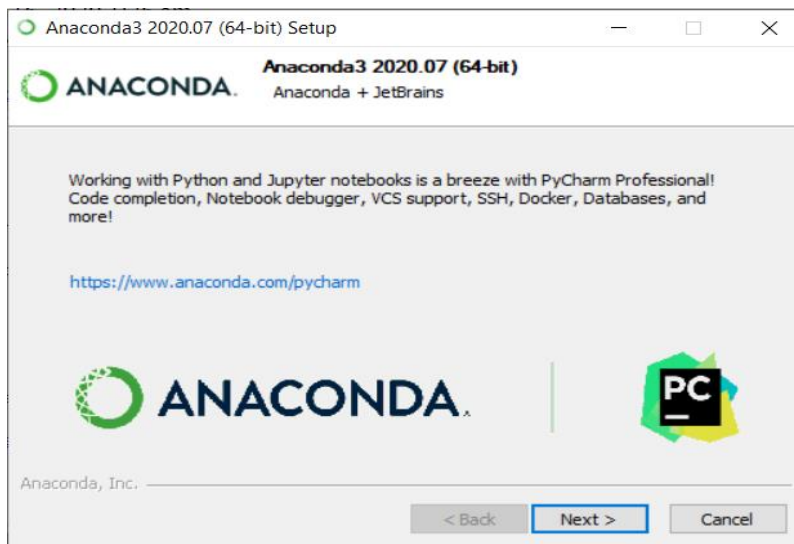
Instead, use Anaconda software by opening Anaconda Navigator or the Anaconda Prompt from the Start Menu

NOTE: Choose whether to register Anaconda as your default Python. Unless you plan on installing and running multiple versions of Anaconda or multiple versions of Python, accept the default and leave this box checked.

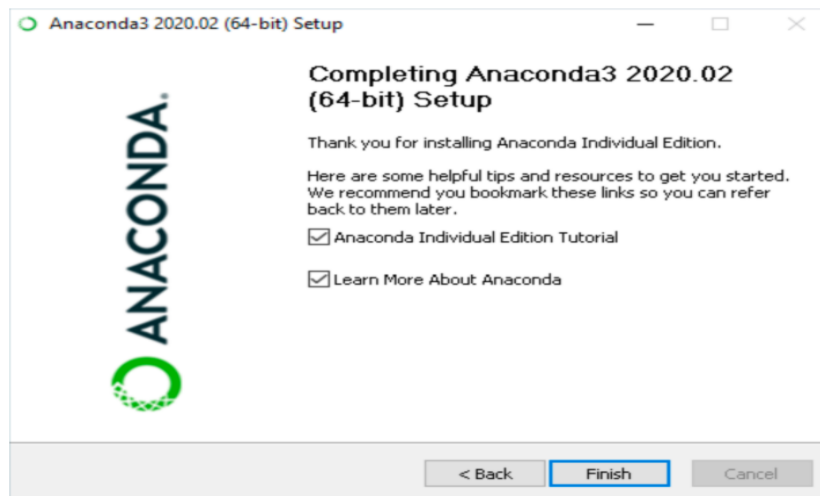
9. Click the **Install** button. If you want to watch the packages Anaconda is installing, click Show Details



10. Click the **Next** button.

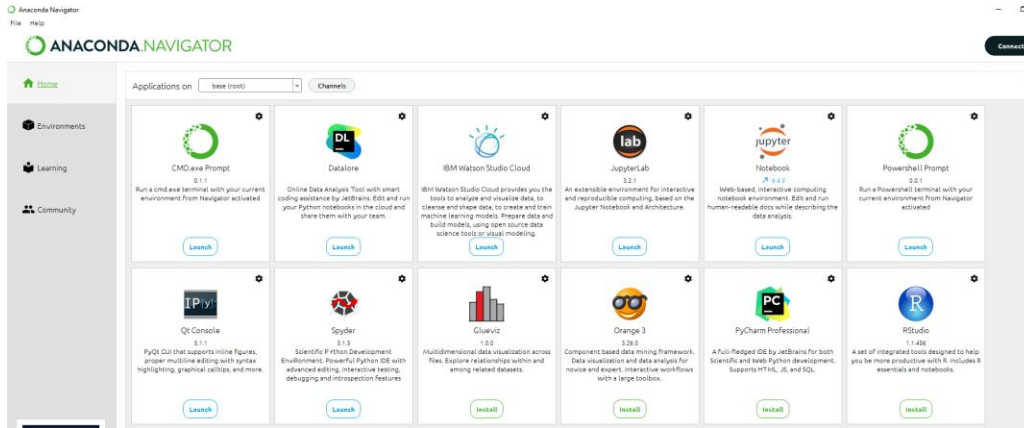


11. And then click the **Finish** button.



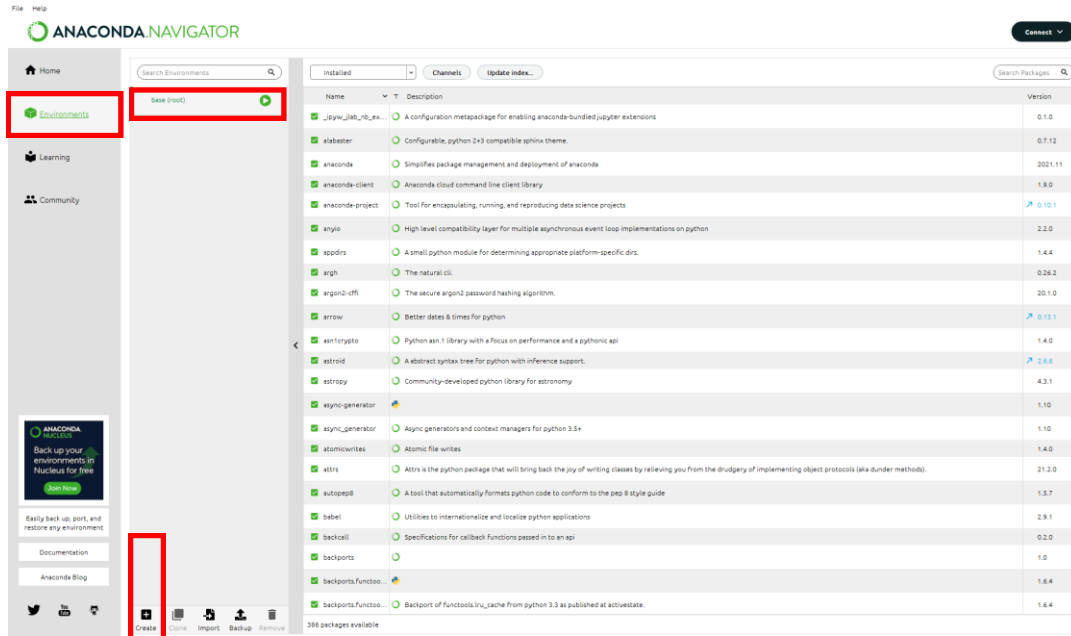
12. After a successful installation you will see the “**Thanks for installing Anaconda**” dialog box:

13. To open Anaconda Navigator, just search it in the windows search. After opening, it will appear as follows. You will see various applications available on the base (root) environment.



Creating a new Tensorflow environment and installing other packages

1. Go to “Environments” tab. Initially, you will only see the “base (root)” environment. To create a new environment, click on “Create” button.

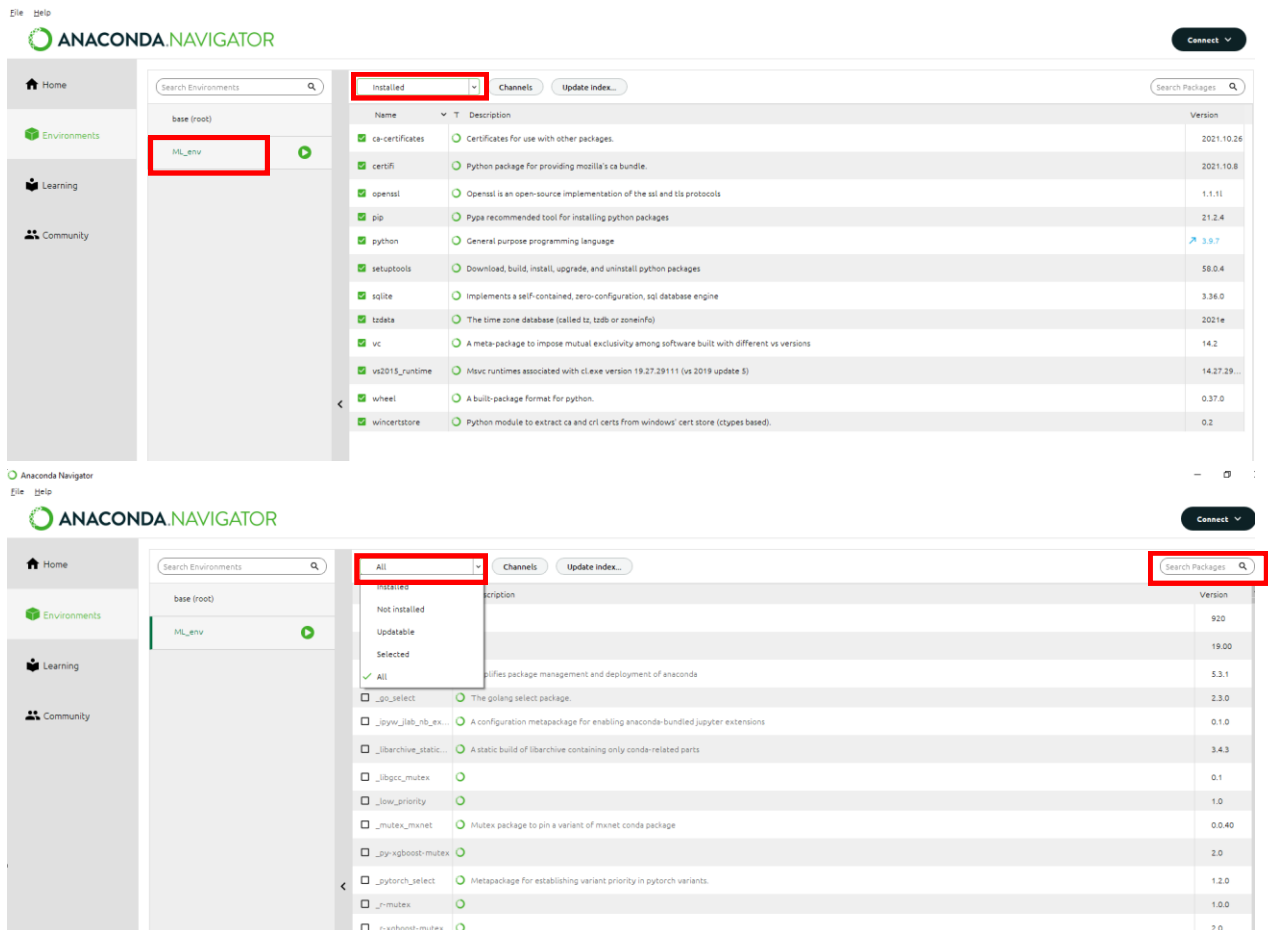


2. Give a name for the new environment, for example “ML_env”, select the python version ~~3.8.12~~ ^{3.11.10} from the drop-down, and click on the “Create” button. It may take some time for creating it.

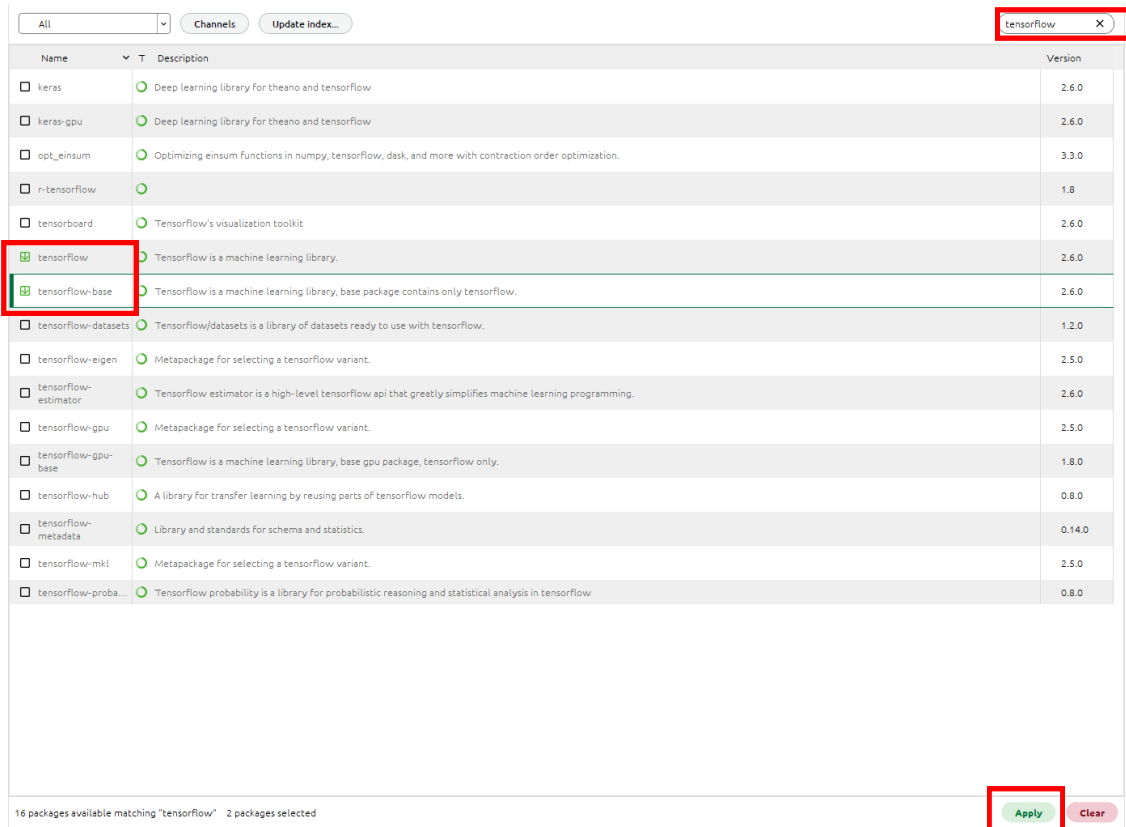


For the latest installation of Anaconda, please use 3.11.10 version of Python here

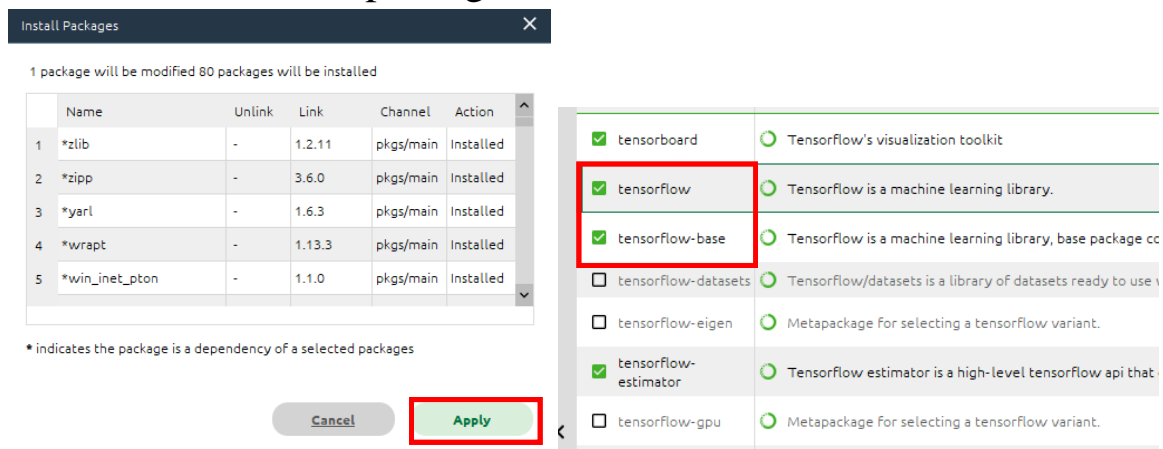
- You will see a new environment created, namely “ML_env” here. You can see all the available packages in this environment by clicking on the drop-down and select “All” as shown below.



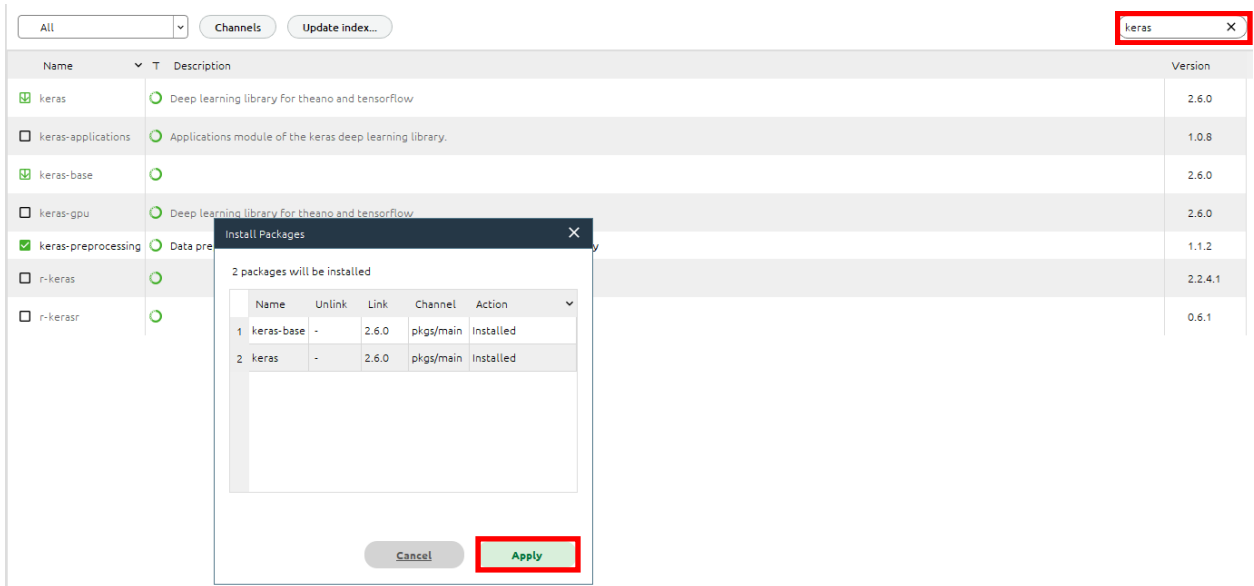
- Now use “Search Packages” box to search the packages. For example, for installing Tensorflow packages, search it and select “tensorflow” and “tensorflow-base” and click on “Apply”



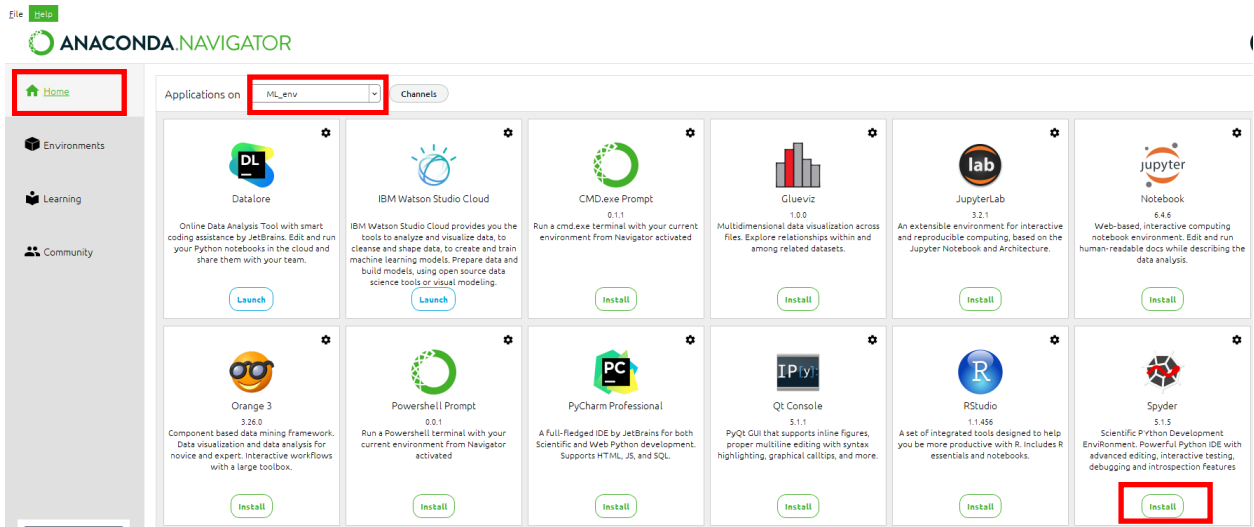
5. It will show you the list of packages, which will get modified/ installed. Then click on “Apply” and wait for installation to complete. Once it is over, you will see a check box appearing in front of the installed packages.



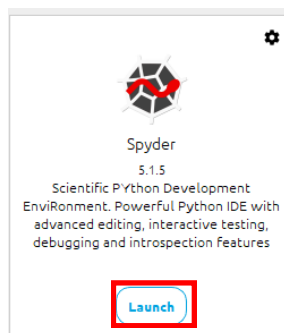
6. Further, in this environment, search and install “Keras” and “Keras-base”. Also do the same for “Pandas”, “Scikit-learn” and “Seaborn”.



7. For installing Spyder IDE on this new environment, go to “Home” tab. In the created “ML_env”, click on “Install” button for Spyder.



After successful installation of Spyder, a “Launch” button will appear to launch the Spyder IDE.



Spyder:

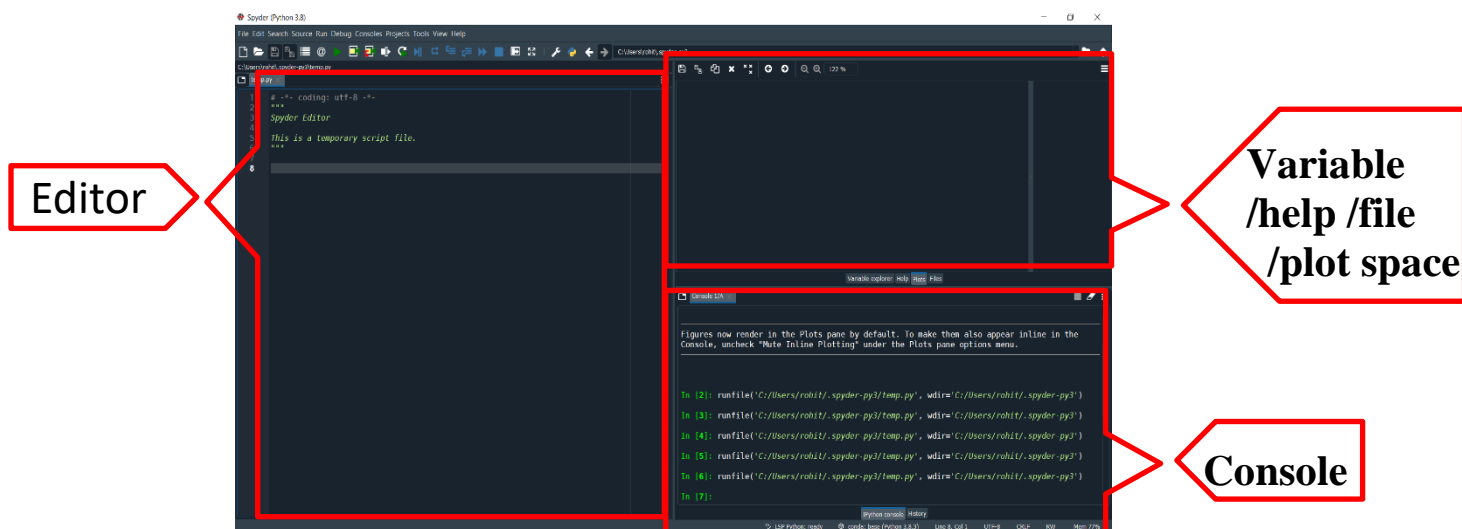
Spyder, the Scientific Python Development Environment, which is a free integrated development environment (IDE) that is included with Anaconda.

It includes:

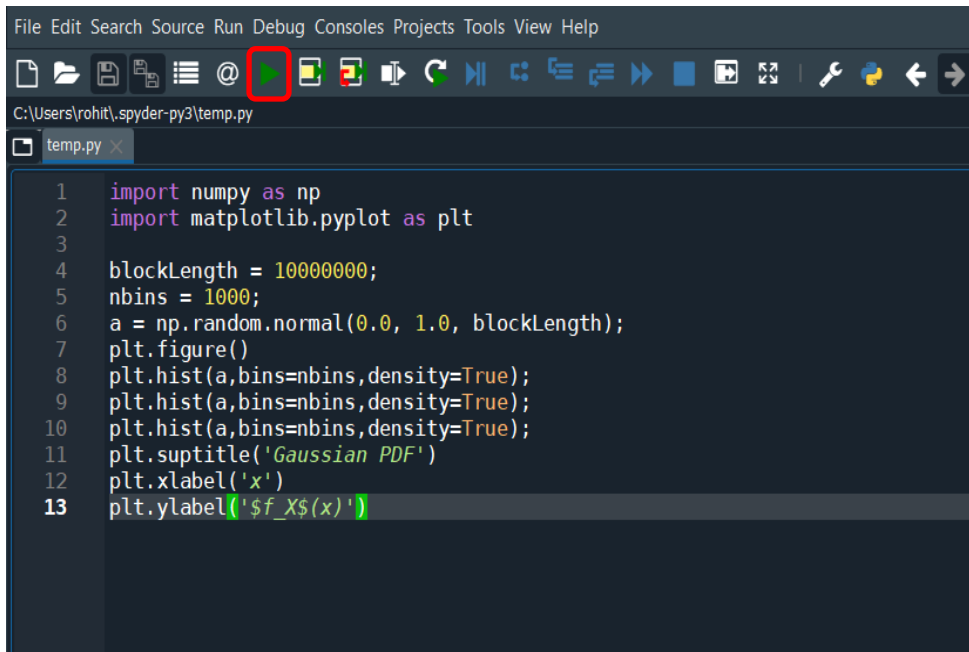
- Editing,
- Interactive testing,
- Debugging,
- Introspection features.

Steps for Spyder setup and run a test code:

1. In Window search box, type **Spyder** and press **Enter**.
2. Spyder IDE opened and you can see a total of 3 area:
 - a. Editor
 - b. Console
 - c. Variable/help/file/plot space.

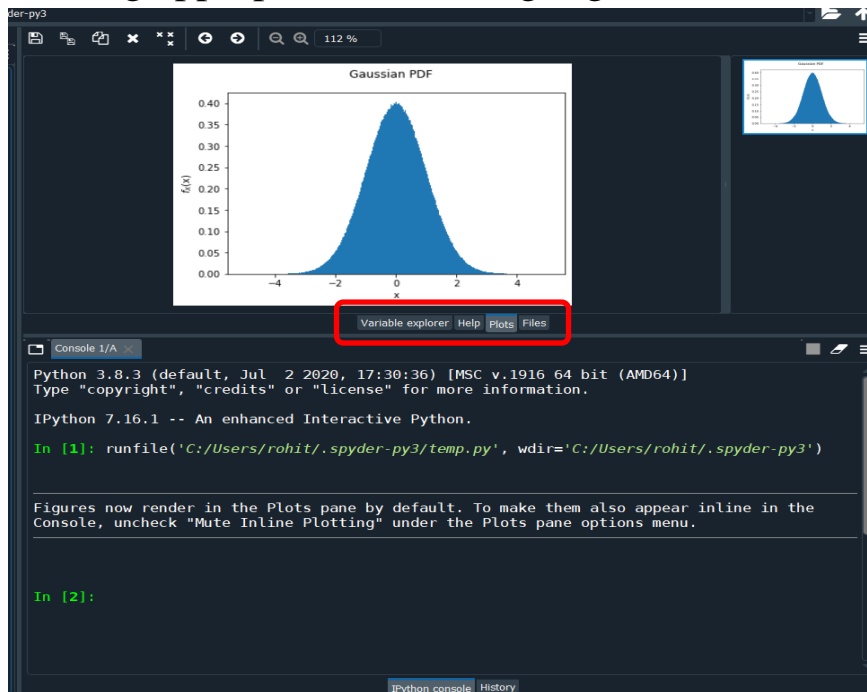


3. Let's **write a test code** in Editor and run the code by clicking on **Run** button:



```
File Edit Search Source Run Debug Consoles Projects Tools View Help
C:\Users\rohit\spyder-py3\temp.py
temp.py x
1 import numpy as np
2 import matplotlib.pyplot as plt
3
4 blockLength = 10000000;
5 nbins = 1000;
6 a = np.random.normal(0.0, 1.0, blockLength);
7 plt.figure()
8 plt.hist(a,bins=nbins,density=True);
9 plt.hist(a,bins=nbins,density=True);
10 plt.hist(a,bins=nbins,density=True);
11 plt.suptitle('Gaussian PDF')
12 plt.xlabel('x')
13 plt.ylabel('$f_X(x)$')
```

4. You can see the **variable, plot, files** on right side of IDE by clicking appropriate tabs as highlighted with **Red color** below:



5. As a whole **Spyder** screen look like as below :

